



OFFICE OF PUBLIC INSTRUCTION

PO BOX 202501
HELENA MT 59620-2501
www.metnet.state.mt.us
(406) 444-3680

Nancy Keenan
Superintendent

August 2000

MONTANA College Readiness Test Scores 2000

- Scores for Montana graduates in the year 2000 remain at the same high level as the 1999 results in ACT and in SAT Math. SAT Verbal scores declined 2 percent.
- Overall scores in Montana remain significantly above the national average.
- Fewer Montana graduates are taking core courses than in past years.
- Health-related college majors continue to be chosen by the highest number of ACT test-takers. Education continues to be the second highest choice.
- Fifty-five percent of the ACT test-takers indicate Montana institutions are their first choices for post-secondary work.
- Test takers indicate highest levels of satisfaction with classroom instruction and the library or learning center.
- Test takers indicate greatest levels of dissatisfaction with the number and variety of course offerings and the school rules, regulations, and policies.

ACT AND SAT RESULTS FOR HIGH SCHOOL GRADUATES

Approximately 61 percent of Montana's 2000 graduating seniors took the ACT exam and 22 percent took the SAT, which were both designed as predictors of college success. Many of the SAT test takers may have taken the ACT also, so the two figures cannot be combined to determine the total portion of graduates taking these two tests.

Montana overall test scores for both tests are well above the national average and have not changed significantly over the past few years. Combining information from both tests provides insight into the academic preparedness of the members of the Montana graduating class of 2000 who plan to continue their education.

American Indian students represent the most significant minority in Montana -- approximately 10.4 percent of the K-12 school population and 6.1 percent of graduating seniors. However, the tests are taken by a small number (334) of American Indian students, and therefore may not be representative of Montana's American Indian high school graduates, especially in the SAT. About 50 percent of the Montana American Indian high school graduates in 2000 took the ACT and 5 percent took the SAT. Other minority groups in Montana have so few test takers that their results are not presented here.

Table 1
ACT and SAT Scores, 2000 – 1999 – 1998 – 1997

ACT - Maximum Score 36, MT test takers – 6,933 in 2000, 6,539 in 1999, 6,397 in 1998, 6,276 in 1997

Scores	-- 2000 --		-- 1999 --		-- 1998 --		-- 1997 --	
	Montana	National	Montana	National	Montana	National	Montana	National
Overall	21.8	21.0	21.8	21.0	21.9	21.0	21.9	21.0
American Indian	17.9	19.1	18.3	18.9	17.7	19.0	19.0	18.8

SAT – Maximum Score 800 Verbal, 800 Math, MT test takers – 2,931 in 2000, 2,543 in 1999, 2,682 in 1998, 2,506 in 1997

Scores	-- 2000 --				-- 1999 --				-- 1998 --				-- 1997 --			
	Montana		National		Montana		National		Montana		National		Montana		National	
	V	M	V	M	V	M	V	M	V	M	V	M	V	M	V	M
Overall	543	546	505	514	545	546	505	511	543	546	505	512	545	548	505	511
Am Indian	504	496	482	481	509	525	484	481	493	493	480	483	485	492	475	475

GENDER DIFFERENCES

In Montana, the 2000 ACT composite score for females was the same as the composite score for males, 21.8. A gender gap continues to exist in the subject subscores, however. Although the gap has slowly narrowed each year of the past few years, males outscore females by 0.9 and 0.8 points in science and math respectively. Females outscore males by 1.3 and 0.7 in English and reading. On the SAT the scores for males continue to be higher than females in both math and science; in the verbal area by a small margin – 4 points, and in math by a large margin – 35 points.

COMMUNITY SIZE

When the scores are examined by community size, some differences are noted. SAT scores for students from the larger communities are significantly higher than those from more rural areas. ACT data is not available by community size.

Table 2
SAT Scores by Community Size:

	% of total	SAT 2000		% of total	SAT 1999	
		Verbal	Math		Verbal	Math
Medium-sized city	25%	549	558	28%	553	559
Small city/town	49%	548	551	47%	548	545
Rural	26%	531	534	25%	532	534

FACTORS THAT IMPACT TEST SCORES

As with other standardized tests, higher levels of parent education and income correlate strongly with higher test scores on both the ACT and the SAT. However, those factors, along with community size and racial background, are not the factors that school systems can change. The most valuable information provided by the results of the ACT and SAT involves the positive correlation factors that can be impacted by school programs and policies. Looking beyond average overall scores provides some of the following details.

Academic Preparation

Test scores indicate that a strong basic program of study in high school correlates with success in college. The scores are markedly higher for those students taking a "core" curriculum (in each area at least 4 years of English, 3 years of math beginning no lower than algebra, 3 years of science, and 3 years of social studies).

Table 3
Difference in Scores for Test Takers with Core High School Curriculum

Year	ACT -- Montana				ACT -- National			
	-- SCORES --	% taking			-- SCORES --	% taking		
	Overall	Non-core	Core	core	Overall	Non-core	Core	core
2000	21.8	20.1	23.2	55%	21.0	19.5	22.0	61%
1999	21.8	20.0	23.1	56%	21.0	19.4	22.0	60%
1998	21.9	20.1	23.2	58%	21.0	19.3	22.1	61%
1997	21.9	19.9	23.2	59%	21.0	19.3	22.1	59%
1996	21.7	19.8	23.0	60%	20.9	19.2	22.0	59%
1995	21.8	19.9	23.1	60%	20.8	19.1	22.0	54%
1994	21.8	19.9	23.0	61%	20.8	19.1	22.0	54%

Both state and national scores have been consistently higher for those taking core curriculum in high school. However, a disturbing trend is that Montana's percentage of test takers with core curriculum has declined from 61 percent to 55 percent over the past 7 years while across the nation the trend is in the opposite direction and the number with core curriculum has increased from 54 to 61 percent. Even fewer American Indian test takers have taken a core curriculum – in Montana 51 percent took core compared to 53 percent of American Indians at the national level.

The 2000 average score for non-core test takers in Montana was 20.1 compared to a score of 23.2 for those with core, and 17.1 for American Indians not taking core compared to 19.1 for American Indians with core. At the national level the average score for non-core test takers was 19.5 compared to 22.0 for those with core curriculum.

Meeting Graduation Requirements

The test results indicate that students who meet the minimum Montana graduation requirements of 2 years of math and 2 years of science are unlikely to enter college with strong math or science skills.

ACT test takers (14%) with less than 3 years of high school math scored 17.2 on the math portion, and students (21%) taking math courses only through geometry scored 19.1. However, those students who took a fourth higher-level math course scored significantly higher. Students taking a math sequence through trigonometry (12%) scored 22.1 and those (7%) taking a math sequence through calculus scored 25.8 on the math test.

In the science area, those (31%) with less than 3 years of natural science scored 20.0 on the science portion, while those (35%) taking a science sequence through physics scored 24.2 in science.

Advanced Placement Courses in High School

The College Board administers both the SAT and the Advanced Placement (AP) high school exams. The AP courses are based on rigorous coursework and testing. Students are exposed to rigorous curriculum offerings, and many colleges give credit or recognize AP coursework at the college level if the test scores exceed an identified level. In Montana, Advanced Placement offerings have grown considerably over the past 12 years.

Table 4
Advanced Placement courses in Montana

<u>AP offerings</u>	<u>2000</u>	<u>1988</u>	<u>12-year increase</u>
Number of schools	71	14	57 schools
Number of candidates	1,596	399	1,203 candidates
Number of exams	2,249	460	1,789 exams

College Choices

The top choices for college majors by the 6,933 ACT and 2,712 SAT test takers are similar to last year's choices, with the exception of social studies moving one step above Engineering and the Visual/Performing Arts moving ahead of Science. Education is ranked differently by the two sets of test takers. On the ACT education is selected as second choice, but drops to seventh on the SAT.

Table 5
2000 Test Takers Choice of College Majors

<u>College Majors</u>	<u>ACT</u> <u>Number Choosing this Area</u>	<u>SAT</u> <u>Number Choosing this Area</u>
Health-related areas	1,047	415
Education	618	152
Business and Management	575	256
Social Studies	505	249
Engineering	464	249
Visual/Performing Arts	437	203
Science	374	170
Agriculture	275	58

Montana State University and the University of Montana were the first choices of 34 percent of the ACT test takers, up 1 percent from 1999. Eighteen percent prefer MSU and 16 percent prefer UM. The first choice for an additional 13 percent was one of the other 4-year units of the University System, and an additional 4 percent chose a private college in Montana, about the same as the previous year. Another 4 percent indicated their first choice was a Montana community college or college of technology. The first choices of the remaining 45 percent showed either out-of-state institutions or listed no preference.

Other Information

When students were asked what assistance they would request in college, 40 percent indicated they would ask for help with occupational planning, 39 percent for assistance in math, 35 percent for assistance in study skills, and 19 percent for assistance in writing.

Graduates were also asked about their degree of satisfaction with various aspects of their local high schools. They indicated the highest levels of satisfaction with classroom instruction, library and learning centers, and guidance services. The areas of greatest dissatisfaction were school rules, regulations, and policies; the number and variety of course offerings, and the adequacy of programs in career education and planning.

Prepared by Dori Nielson
